

## CLAIMS

What is claimed is:

1. A method for configuring an endpoint device to a computer network,

5 comprising the steps of:

monitoring a dynamic allocation of a first unique network address to the endpoint device when the endpoint device is connected to the computer network;

establishing, in response to said monitoring, a connection between a configuration manager and the endpoint device;

10 identifying, through said established connection, a class of the endpoint device connected to the network;

retrieving configuration information from a configuration database for the identified class of the endpoint device; and

15 configuring the endpoint device to the computer network using the retrieved configuration information.

2. The method according to claim 1, further comprising the step of:

assigning to the endpoint device a second unique network address that is selected from a block of predetermined network addresses for the identified class of the endpoint device,  
20 to replace the first unique network address.

3. The method according to claim 2, wherein the first unique network address is a first IP address allocated by a DHCP (Dynamic Host Configuration Protocol) server and the second unique network address is a second IP address assigned by the configuration manager.

5

4. The method according to claim 1, further comprising the steps of:  
receiving from the endpoint device a request signal for assignment of a network address to the endpoint device; and

providing the first unique network address to the endpoint device in response to said request signal.

5. The method according to claim 1, further comprising the steps of:  
transmitting a polling signal to the endpoint device when the endpoint device is connected to the network;

receiving from the endpoint device a reply signal in response to the transmitted polling signal; and

providing the first unique network address to the endpoint device in response to said reply signal.

6. The method according to claim 1, wherein the endpoint device comprises a router operatively connected to a second computer network for effecting a configuration of a plurality of computer networks.

7. The method according to claim 1, wherein the endpoint device comprises a computer-controlled standalone device.

5 8. The method according to claim 2, wherein said assigning further comprises removing the first unique address from a listing of active addresses so as to reserve the first unique address for future use.

9. The method according to claim 1, further comprising the steps of:  
10 determining, prior to said establishing, whether communication between the computer network and the endpoint device can be established; and  
if communication cannot be established, assigning to the endpoint device a second unique network address selected from a block of predetermined network addresses that are each reserved for an unknown device, to replace the first unique network address that had been  
15 allocated to the endpoint device.

10. The method according to claim 2, wherein the first unique network address is allocated to the endpoint device for a lease period, and further comprising the step of:

modifying, with said assigning of the second unique network address to replace  
20 the first unique network address, the lease period of the endpoint device connected to the computer network.

11. The method according to claim 1, further comprising the steps of:

determining whether adding of the endpoint device to the computer network exceeds a predetermined threshold number of endpoint devices to be connected to the network; and

5 if the predetermined threshold number is exceeded, restricting the endpoint device to be added as a router operatively connected to a different computer network.

12. A server computer for configuring an endpoint device for connection to a computer network, said server computer comprising:

10 a network interface;

a configuration database for storing configuration information for at least one class of the endpoint device;

15 means for verifying a first unique network address provided via said network interface to an endpoint device connected to the computer network and for providing a signal indicative of said verifying;

a connection manager operable for establishing, in response to the signal from said verifying means, communication between the computer network and the endpoint device; and

20 a configuration manager operable for identifying a class of the endpoint device connected to the computer network, for retrieving from said configuration database configuration information for the identified class of the endpoint device, and for automatically configuring the endpoint device to the computer network using the retrieved configuration information.

13. The server computer according to claim 12, further comprising:

a DHCP server for assigning to the endpoint device a unique IP address as the first unique address.

5

14. The server computer according to claim 12, wherein said configuration

manager is operable to assign to the endpoint device a second unique network address selected from a network address within a block of predetermined addresses for the identified class of the endpoint device, wherein the second network address replaces the first network address.

10

15. The server computer according to claim 12, wherein said verifying means

comprises a DHCP watchdog.

16. A computer readable medium having stored thereon a plurality of

15 instructions which, when executed by a processor, cause the processor to perform the steps of:

monitoring a dynamic allocation of a first unique network address to an endpoint device when the endpoint device is connected to a computer network;

establishing, in response to said monitoring, a connection between a configuration manager and the endpoint device;

20 identifying, through said established connection, a class of the endpoint device connected to the network;

retrieving configuration information from a configuration database for the identified class of the endpoint device; and

configuring the endpoint device to the computer network using the retrieved configuration information.

5

17. The computer readable medium according to claim 16, further comprising the step of:

assigning to the endpoint device a second unique network address that is selected from a block of predetermined network addresses for the identified class of the endpoint device, to replace the first unique network address.

10

18. The computer readable medium according to claim 17, wherein the first unique network address is a first IP address allocated by a DHCP (Dynamic Host Configuration Protocol) server and the second unique network address is a second IP address assigned by the configuration manager.

15

19. The computer readable medium according to claim 16, wherein the endpoint device comprises a router operatively connected to a second computer network for effecting a configuration of a plurality of computer networks.

20

20. The computer readable medium according to claim 16, wherein the endpoint device comprises a computer-controlled standalone device.